

ENVIRONMENTAL PROTECTION AGENCY
REGION II
EDISON, NEW JERSEY 08817

REPLY TO
ATTN OF

A. H. Gevirtz, Hazardous Material
Spill Response Officer

DATE: August 2, 1976

SUBJECT:

Relationship of NJDOT Land R280, Section 8, Parcel A&B, and Diamond
Head Oil Refining Co. to the Kearny Oil Spill, Exit 15W of New Jersey
Turnpike (Coast Guard #1-6-0090)

TO:

Michael V. Polito, Chief
Emergency Response & Inspection Branch

On June 14, 1976, Joe Marishak discovered oil flowing from a vacant piece of property adjacent to Diamond Head Oil Refining Co. on Harrison Turnpike. The oil was coming from a stream found to flow beneath Harrison Turnpike into a marsh area. This was determined by dye testing the stream on June 17, 1976 (Refer to Clark Price's report of July 12, 1976). This marsh area parallels Exit 15W of the New Jersey Turnpike.

On June 15, 1976, Mike Polito contacted the U. S. Coast Guard for a determination of navigability of the marshes. The NJSDEP was notified of an oil spill from State lands into the Hackensack Meadowlands (POLREP #1, M. Polito, 7/24/76).

On June 18, 1976, Attorney Gluckstern notified the Commissioner of the Department of Transportation of the spillage of oil to the marshes.

On June 21, 1976, Attorney Gluckstern delivered legal notice to Frank Cahil, Supervisor, Laws and Commissions, New Jersey Department of State, of a spill of oil into the waters of the United States within the intent of 33 USC §1321(b)(3).

On June 22, 1976 together with George Zachos, I conducted a survey of the land referred to as R280, Section 8, Parcel A&B, belonging to New Jersey Department of Transportation, and the area in back of Diamond Head Oil Refining Co. including lakes and lagoons. There was visible evidence that the lagoons had overflowed into the lake which was on the NJSDOT property. Leachate was visible emanating from the base of a lagoon and flowing into the lake. The lake contained considerable oil with the oil depth extending at least 1 foot deep in places. The lake was traced (on 6/25/76) to an oil contaminated stream on the eastern corner of the parcel. This was the stream shown by Clark Price (on 6/17/76) to flow under Harrison Turnpike into the marsh alongside Exit 15W of the New Jersey Turnpike (refer to Clark Price's report dated 7/12/76).



Further evidence that oil flowed from the lake into a series of rain made stream and gullies filling a vacant building on the western corner of the parcel with oily water, and carrying oil onto the road and into a storm sewer which exits to the marsh. This pipe to the marsh was dry at the time.

There was some evidence of fresh dikes having been built around the vacant buildings. This was the only evidence that anything was being done to contain the oil.

The location of the oil in the marshes consisted of a main channel about 15 ft. wide and 1000 ft. long paralleling the Exit 15W of the Turnpike. About 800 ft. was covered with a thick layer of oil. The water near the Turnpike entrance did not contain oil. (A second pool of oil was discovered on 6/23/76 by a Coastal Services worker inside the marshes).

On 6/23/76, Mike Polito obtained from Lt. Jurgens, 3rd U. S. Coast Guard District, a determination that the Meadowlands are waters of the United States. Mr. Polito activated the pollution fund (Refer to POLREP #1, M. Polito, 6/24/76).

On 6/23/76, I was appointed OSC at which time Coastal Services was hired as contractor. Cleanup operations were started immediately with two filter fences being installed to stop the flow of unemulsified oil into the marshes. It appears likely that some emulsified oil continued to flow. A vacuum truck was employed to begin the removal of oil.

On 6/24/76, Mike Polito activated the RRT (POLREP #2, M. Polito, 6/24/76). An estimate of total oil in the marshes ran on the order of 100,000 gallons.

On 6/25/76, the cleanup operations were increased both in equipment and working hours.

While reviewing the source of the oil spill with Mike Polito, we observed a brownish liquid being delivered through a pipe to a lagoon in the rear of Diamond Head. The liquid contained oil (visual examination). From the bottom of the lagoon, black liquid was flowing through a pipe with an open valve. The liquid was flowing into the large lake on NJSDOT property (R280, Section 8, Parcel A&B). A sample of the black liquid was taken by me and turned over (6/29/76) to the analytical laboratory, EPA, Edison, NJ Sample 37182. According to an analysis by the Diamond Head laboratory on another sample taken by them, the sample contained 10% oil. The valve was turned off, stopping the flow of black liquid.

Mr. Polito informed Mr. R. Mahler, the company representative, that they were in violation of Federal law. Their oil was getting into navigable waters. Mr. Mahler's response was that they had received

permission from NJSDOT to discharge into the lake on their property and that Ed Faille of the NJSDEP had told them to keep the valve open, discharging the lagoon bottoms to the lake, in order to prevent the lagoon from overflowing and contaminating the land.

Mr. Mahler indicated that they had no federal discharge permit (NPDES) but indicated they would discontinue the discharge and apply for a permit.

On this date, Mr. Polito informed Richard Baker, Chief, Status of Compliance Branch, of our investigation and discussion with Mr. mahler and recommended an investigation of possible NPDES violations.

There were some signs that an oil tank overflowed into an undiked law area with standing oil pools. I observed buried pipes leading to the lake and a partially buried pipe leaking oil 15' from the lake on high ground.

I returned with Joe Marishak who took pictures of the entire area - lagoons, lakes, stream tanks and pipes.

I later returned with Scott McCone, NJSDEP, for a discussion with Mr. Mahler. Scott McCone spoke of his visit in the fall 1975 at which time he told Mr. Mahler to clean up the area, line the lagoons with clay, and install ground wells to pump oil from the oil saturated ground. At the time we were there, the ground wells had been installed but were not being used. One that we checked was full of oil. Mr. Mahler insisted that he was told by Ed Faille, NJSDEP, to keep the pipe from the lagoon to the lake open. (On 6/29/76, I spoke to Ed Faille who denied he had ever given permission to keep the valve open). Scott McCone informed Mr. Mahler that Federal regulations supercede the State's authority and that he must conform to Federal law. He was told to apply for a NPDES permit, clean up the area and start operating the ground wells.

On June 26, 1976, Joe Marishak and I observed a condensate receiving tank overflowing to an undiked area. In addition, there was a continuous discharge from a 4 inch pipe in this area. Both liquids had a yellowish color and contained oil. Mr. Shah, the operator, said that the liquid went to pits. He did not know where it went from there. I was unable to contact management. I checked the lagoon nothing was flowing in or out of it. Sand had been used to cover oily areas in front of Diamond Head. On 6/27/76, Joe Marishak, while checking the progress of the cleanup work in the marsh, spotted "killies" (report dated 7/8/76).

On 6/28/76, I contacted Mr. Mahler and was informed that the material which goes to the pits is pumped to a holding tank and shipped to Palmer, Massachusetts for reprocessing.

On 6/29/76, I inspected the second oil area in the marsh. A main pool exists about 15 feet in diameter about 25 feet from the main channel. There were visible signs where the two had been connected. A path of at least 50 feet leads from the pool, containing dead weeds, oil and water. As the cleanup of the pool commenced, it was evident that oil was leaking back from this area into the pool during rains.

On 6/30/76, I surveyed the marsh with an eye towards evaluating the work involved in removing the remaining oil. The majority of the oil on the water's surface had been removed. Conserable oil still remained absorbed on the banks and in weeded areas in the water. This was evident during a rain storm when the oil leaked out. It was not considered advisable to remove the weeded area at this time, at least until all danger of additional oil flow into the marsh was removed. The weeds appeared to be acting as a natural filter fence preventing the flow of oil out of the marsh. Cleanup operations ceased.

58,500 gallons of oil had been removed at a cost of approximately \$25,000. Three filter fences were left on site and a modified dam was erected to restrict the oil flow into the marsh.

During the period 6/23 - 7/1 a representative of NJSDOT appeared at the cleanup site daily for a review of the manpower and equipment used.

On 6/23-6/25 and 7/1, Dave Longstreet, NJSDEP, was at the cleanup scene.

On 7/1/76, Mike Polito deactivated the RRT (POLREP #4, M. Polito, 7/1/76).

On 7/2/76, Mr. Polito confirmed in writing to Mr. Mahler their discussion of 6/25/76 and informed him of the denial by NJSDEP of any permission to discharge the oil water mixture. He was also informed of his possible liability under the provisions of P.L. 92-500, Section 311.

On 7/6/76, I reinspected the site. The absorbent in the filter fences needed changing. No emulsified oil was flowing into the marsh. The site looked similar to that of 7/1/76. Coastal Services changed the absorbents on 7/7/76.

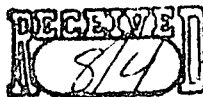
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: August 3, 1976

JECT: Analytical Results - Diamond Head Oil
Refinery, Kearny, N.J.

FROM: F. T. Brezenski *F. T. Brezenski*
Chief, Technical Support Branch

TO: Chief, Emergency Response Branch.



EPA Sample No. 37182 collected from a lagoon in the rear of the Diamond Head Oil Refinery in Kearny, N.J. was analyzed by IR spectroscopy and GC/MS. Percent total hydrocarbons were determined by IR spectroscopy using the 2926 cm^{-1} band. No carbonyl bands were present. Percent total hydrocarbon was 41 and the remaining 59% was water. Computerized GC/EIMS indicated that the sample contained a heavy petroleum oil with characteristic paraffin hydrocarbons homologous series plus aromatic hydrocarbons.